Math 5a, homework 14.

1. Prove that bisectors of two supplementary angles are perpendicular to each other (draw a sketch, use ruler and protractor).
2. Ratio of the measures of two supplementary angles is $2: 3$. What are the measures of the angles?
3. Do the points $\mathrm{A}, \mathrm{O}$, and C lie on the same line?

a. Angle $\angle \mathrm{AOB}=137^{\circ}$

Angle $\angle \mathrm{BOC}=43^{\circ}$
b. Angle $\angle \mathrm{AOB}=65^{\circ}$

Angle $\angle \mathrm{BOC}=116^{\circ}$
4. Are these two lines parallel?

5. Parliament elections were held on Fruit Island. Everyone who voted for the Mandarin party love tangerines. Of those who voted for other parties, $90 \%$ do not like tangerines. How many percent of the votes got the Mandarin party, if it is known that exactly $46 \%$ of the inhabitants love tangerines.
6. Evaluate (answer is 5):

$$
(2.5-0.75) \cdot \frac{4}{7}+\left(\left(3 \frac{3}{8}-2 \frac{11}{12}\right) \cdot 1 \frac{7}{9}+2 \frac{11}{12} \cdot 1 \frac{7}{9}\right):\left(3.5: 2 \frac{1}{3}\right)
$$



